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ABSTRACT

This resource guide was published as part of the college-wide assessment and evaluation activities at Columbia Basin College (Washington) in 1997. The purpose in producing the document was to meet the need for some guidelines and written information about how to develop an assessment plan, the different ways to assess that plan, and how to use the results. The first chapter provides guidelines for designing an assessment. The second chapter discusses the development of departmental goals and objectives/outcomes for learning. Chapter 3 addresses using surveys for assessment, and chapter 4 deals with the use of tests for assessment. The fifth chapter provides guidelines for performance-based assessment measures including portfolios. Chapter 6 addresses the use of institutional data for assessment. An overview of other assessment techniques including interviews, focus groups, unobtrusive measure, and anecdotal records, logs, and journals is included in chapter 7. Chapter 8 provides strategies for reporting and using assessment results. Many chapters include question and answer sections, exercises, and checklists. Several appendices contain examples of outcomes and assessment tools. (CB)

Columbia Basin College

Assessment Resource Guide

Office of Institutional Research & Marketing
CBC Assessment Committee
August 1999

Foreword

At Columbia Basin College, the staff of the Office of Institutional Research and Marketing work cooperatively with departments to help facilitate different types of assessment projects. We work with faculty members on a one-to-one basis and in workshop settings. The CBC Assessment Committee is also very willing to help their colleagues in the way of advice and assistance as they begin to study different assessment methods and how these can fit into their department's plan.

This resource guide came about because of the newness of outcomes assessment to CBC and the need for some guidelines and written information about how to develop an assessment plan, the different way to assess that plan and how to use the results. The CBC Assessment Committee is also a resource to faculty as they establish their outcomes, means of measurement and determining what criteria will spell success. Data gathering is an ongoing process for some, periodically or annually for others. A timeline for gathering data and presenting reports is included as an appendix in this guide.

The initial chapter provides guidelines for designing your assessment plan. The second chapter discusses the development of departmental goals and objectives/outcomes for learning—the basis for assessment activities. The remaining chapters concentrate on specific assessment activities – developing tests, designing questionnaires, and using institutional data. The focus of each chapter is on the way you can use a particular technique for assessment purposes. What can a survey tell you about your program? How is a test for assessment different than a course exam?

Most of the chapters include a question and answer section. Some of the chapters also include exercises and checklists. The checklists are not meant to be exhaustive —they are meant to be suggestive. In addition, they should allow you to move back and forth through the chapters so that you can focus on what's most relevant to you.

The staff of the Institutional Research and Marketing Office compiled the workbook. Information for the guide came from a variety of resources but most helpful were publications sent to us by Ball State University and from a conference workshop administered by the University of Arizona and Arizona State University. I sincerely thank them for allowing me to use their materials.

We hope the workbook is useful to faculty, staff and administrators responsible for assessment. We intend for the guide to evolve over time. We welcome your comments and suggestions to increase its usefulness.

The Assessment Committee and the Office of Institutional Research and Marketing are always available to work with faculty and staff members on assessment projects and to conduct workshops on assessment topics.

Judi Knutzen, Director
Office of Institutional Research and Marketing

Mike Brand, Co-Chair Assessment Committee,
Math Department

Pat Campbell, Co-Chair Assessment Committee,
Student Services

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Designing a Department Assessment Plan

This chapter provides guidelines for designing an assessment plan. It suggests ways to identify the department's assessment needs and then explores the different types of assessment tools and activities that are available to departments.

In order for assessment to be effective and useful, it is advisable to develop an assessment plan based on the needs of the department. Having a plan can ensure that the selected assessment activities meet the various requirements of the department's constituents, measure what needs to be measured, and provides useful data. As assessment plan should address the three basic questions:

1. What are we doing?
2. Why are we doing it?
3. How will we use it?

Checklist for Designing an Assessment Plan

An initial task when designing an assessment plan is to identify the department's assessment needs. The checklist below can be used to answer some basic questions about designing and implementing an assessment plan.

What are we assessing?

General education abilities
Discipline specific knowledge
Vocational skills
Success of the program
Specific courses

Is there a need to look at assessment requirements of any of the following?

Curriculum committee requirements
Professional accreditation
Professional licensing/certification

What do we want to know?

- Knowledge of subject matter
- Skills competency
- Critical thinking skills
- Writing skills
- Attitudes/Satisfaction
- Career success of graduates

From whom will we collect the data?

- New to college students
- Current students
- Alumni
- Faculty
- Employers of graduates

Who will see the resulting information?

- Accrediting bodies
- Curriculum committee
- Advisory committees
- Deans and other administrators
- The department
- Students
- Alumni
- Colleagues at other colleges

How will the data be used?

- Internal discussion
- Curricular revisions
- Reports to constituents

How often will data be collected?

- Special, one-time projects
- Each quarter
- Annually
- Cyclically

Available Assessment Tools

Many assessment tools may already be in use within the department. Faculty members often engage in evaluative or research activities that are, or can be translated into, assessment activities. A review of these processes would determine whether they are effective and usable for assessment purposes, and whether the department is making the most of existing points of contact with their students. New assessment methods may be chosen to fit the needs of the department. Several of the assessment tools listed here are discussed in detail in the following chapters.

What existing information is available to the department?

Trends in student performance
Tracking exam or course grades over time

Descriptive indicators for enrolled students or alumni
Student data such as ASSET, GPA, satisfaction

Trends in student enrollment
Retention, enrollment, or graduation rates for students in the department

Course exams or assignments
Any existing exams, assignments, or projects common to a group of students

Materials describing current curricular program (syllabi, exams, texts, etc.)

Secondary reading of papers or final exams for critical thinking and/or writing skills

What new information can be generated by the department?

Surveys
Entrance surveys
Why did students select the program?

Course surveys
What are student's expectations of the course?

Faculty interviews or surveys

Alumni surveys

Employer (of graduates) surveys

Portfolios – *collected examples of student work*

Performance measures – *activities such as writing a paper, making an oral presentation, completing a computer project, summary papers, poster presentations, diagrams/graphics, demonstrations, story telling, producing a product, dramatic or musical performances, journals/diaries*

Unobtrusive measures – *observation and recording of student use of* facilities and services

Standardized tests

Faculty constructed exams

Minimum competency exams (pre- & post-tests)

Comprehensive end-of program exams

Peer feedback/evaluations

Self-evaluations

Community member evaluations

Case studies

Interviews

Questions and Answers on Designing an Assessment Plan

Q) What are some characteristics of an effective assessment plan?

A) To be effective, an assessment plan needs to contain the following important characteristics:

- Assessment should flow from the department's purpose statement and needs to be both ongoing and built into the department's program.
- Assessment should use multiple measures, both qualitative as well as quantitative, rather than relying on one instrument or activity.
- A successful assessment program requires faculty ownership and responsibility since faculty members, more than anyone else, are directly involved in the process of student learning.
- Finally, the results of assessment activities should lead to improvement and be seen as a means rather than an end.

Q) How do we decide where to begin our assessment?

A) A good place to start is by examining the department's purpose statement. What, according to the purpose statement are the intended outcomes of the program? Which of these outcomes are most important to the program? Once these intended outcomes have been identified and prioritized, the next step is to select the best way to determine whether these outcomes are being achieved.

Q) Why is it so important to use multiple measures?

A) The very nature of assessment makes it important that you avoid relying on only one measure, such as a test or survey, to provide information about your course or program. Relying on one measure is risky since it could result in misleading perceptions of what is going on the department. Students may perform poorly on one test or project, but better on another. Student responses on a survey, while certainly informative, take on a much richer meaning when seen with test results from those students. Both pieces are enhanced by correlation with student database information. Multiple measures allow you to explore what students know, what they can do with what they know, and what they think about the whole process. Don't forget, too, that important

information can be gleaned from sources other than students. Data from surveys of faculty, alumni, and employers of program graduates can be combined with student input to provide a well-rounded picture of your program/department.

Q) How do we involve all faculty in the department?

A) Some faculty members may be resistant to assessment. A good way to overcome that resistance is to involve faculty in the process of assessment. In a planning session or focus group format, begin by asking faculty members to answer questions such as: "What outcomes do we value?" or "How would we identify a successful student in our course(s)?" The resulting discussion can spark ideas for an assessment plan. If designing a survey or exam, ask faculty members to submit items for the instrument. The most effective assessment plan is one that involves and has the support of the department faculty.

Q) Should we collect assessment data from all our students or just a sample?

A) This depends on the size of the student population involved. A gen ed course that has six sections of from 40-100 students would require only a sample of those students to be tested or surveyed. On the other hand, a class that typically enrolls only 20 students per quarter might be more effectively assessed if the assessment activity involved all the students enrolled.

Q) Do we need to collect data in all sections of a course or just a sample of sections?

A) Again this depends on the department. There may be several sections of a course being taught by the same instructor or using the same text or exams. In this case, the department may decide to use only a sample of sections. If, on the other hand, several different faculty members using a variety of texts and exams are teaching the different sections, it may be wise to use a sample of students from each section. The answer to this question also depends on the purpose of the assessment project. Assessment of a Math 91 course may be focused on exploring whether each section of the course is meeting the goals and objectives of the course. This type of assessment will be more effective if all sections are involved. A survey of student satisfaction with their learning in core courses may require that only a sample of the sections of the course be assessed.

Q) Who will see our department assessment results?

A) Most assessment data collected by a department is for department use only. Assessment provides an opportunity for the department to take a critical look at their courses to identify strengths and weaknesses. There are, however, some instances where a department is gathering assessment data for a particular audience, for example, college accreditation or professional accrediting bodies. The Deans of the various divisions should be given copies of the outcomes, measurements, and criteria for success and use of the data (assessment records, forms B and C) on an annual basis. Some of your assessment data may be useful to you in substantiating a budget increase for your department.

Elements of Outcomes Assessment

STEPS IN AN ASSESSMENT PLAN

1. Program purpose statement tied to college mission statement.
2. Program goal statement for student learning and development consistent with mission statement.
3. Specific intended learning and developmental outcomes consistent with goal statement.
4. Multiple quantitative and qualitative assessment measures / procedures and criteria for assessing each learning or developmental outcome.

In addition to the above, a successful assessment program requires faculty ownership and responsibility. Furthermore, the results of assessment activities should lead to improvement and be seen as a means or continuous process rather than an end. Examples of those results may be the improvement of teaching and learning and/or the evaluation of curricula. As the process is cyclical, the effects of changes are then, themselves, evaluated.

OUTCOMES

- Categories: content learning, cognitive skill development, attitudes and values, motivations (e.g., persistence), interests, appreciation, personal, educational, social, occupational, economic
- 3 Rs
- written and oral communication skills
- quantitative and literacy / verbal skills

- life-long learning
- thinking skills – reasoning, critical thinking, problem-solving, creativity
- knowledge, comprehension, application, analysis, synthesis, evaluation
- scientific understanding / inquiry
- cultural enrichment
- social awareness / interaction
- global consciousness

MEASURES

What could be measured to give *evidence* of the expected outcome? How can it be measured? Under what circumstances should we see evidence of the outcome? When? What will be seen, done, or possessed when the outcome is reached?

- Levels of: institutional, general education, departmental
- Standardized tests
- Competency exams
- Locally developed achievement tests
- Attitude inventories
- Student and alumni surveys
- Employer surveys
- Performance, observation
- Institutional data
- License / certification
- Portfolio analysis: capstone courses; interviews; focus groups
- Transcript analysis
- Systematic review of syllabi, textbooks, exams and other curriculum materials

Chapter II

Shaping Department Outcomes for Assessment

- Goals and Objectives
- Mastery Versus Developmental Objectives
- Getting Started
- Components of Outcomes
- Drafting Outcomes
- Checklist for Evaluating Written Outcomes
- Types of Learning Outcomes to Consider
- Bloom's Classification of Cognitive Skills

Goals and Objectives

Goals and objectives are similar in that they serve to direct teaching and learning. They describe the intended purposes and expected results (outcomes) of teaching activities and establish the foundation for assessment.

> **Goals** are statements about general aims or purposes of education that are broad, long-range, intended outcomes. Goals are used primarily in policy making and general program planning.
>
> **Objectives** are brief, clear statements that describe the desired learning outcomes of instruction. Attention is focused on the specific types of performances that students are expected to demonstrate at the end of instruction.

Goals express intended outcomes in general terms and objectives express them in specific terms. Goals are written in broad, global and sometimes vague language while objectives are statements that describe the intended results of instruction in terms of specific student behaviors.

Difference between objectives and outcomes: Objectives are intended results or consequences of instruction, curricula, programs or activities. Outcomes are achieved results or consequences of what was learned – evidence that some learning took place. Objectives specify what is expected and describe what should be assessed; outcomes are behaviors and products generated by students after instruction and are the objects of assessment.

Mastery versus Developmental Objectives

> **Mastery objectives** are typically concerned with the minimum performance essentials; those learning tasks that must be mastered by all students for success at the next level of instruction. These objectives tend to be limited enough in scope that all, or nearly all, intended outcomes can be specified.
>
> Examples:
>
> Solve quadratic equations
> Identify symbols used on weather maps
> Identify parts of the microscope

Development objectives are concerned with more complex learning outcomes - those learning tasks toward which students can be expected to show varying degrees of progress. Developmental objectives are often written in a two step process in which a general objective is stated along with a sample of specific learning outcomes.

Example:

Understand basic theoretical orientations
State the theory in his/her own words
Give an example of the theory
Distinguish between correct and incorrect applications of the theory
Identify predictions that are consistent with the theory

Example:

Understand basic scientific principles
State the principle in his/her own words
Give an example of the principle
Distinguish between correct & incorrect application of the principle
Identify predictions that are in harmony with the principle

Getting Started

Before writing or revising departmental outcomes, you might try a few of the following:

Have some open discussion sessions on one of the following topics or something similar.

- Describe the ideal student in your program at various phases throughout your program. Be concrete and focus on those strengths, skills, and values that you feel are the result of, or at least supported and nurtured by, the program experience. Then ask:

  What does this student know?
  What can this student do?
  What does this student care about?

  - List and briefly describe the program experiences that contribute most to the development of the ideal student.
  - List the achievements you implicitly expect of program graduates.
  - Describe your alumni in terms of such achievements as career accomplishments, lifestyles, citizenship activities, and aesthetic and intellectual involvement.

Collect and review instructional materials. Try sorting materials into three broad categories: recognition/recall, comprehension/simple application, critical thinking/problem-solving. Use any of the following:

- Syllabi and course outlines.
- Course assignments and tests.
- Textbooks (especially the tables of contents, introductions, and summaries).

Collect and review documents that describe your department/program:

- Brochures and catalogue descriptions
- Accreditation reports
- Curriculum committee reports
- Mission or purpose statement

Review and react to outcomes from another department that is similar but external (example, another community college in Washington). Try grouping the statements into broad categories of student outcomes (i.e., knowledge, attitudinal, behavioral).

Use the 25 percent rule to refine or reduce a set of goal statements. Imagine that you want to reduce program or course material by 25 percent. What goals would you keep and which you discard?

Administer a goals inventory or conduct an interview study. Involve a variety of groups (or "stakeholders") when possible.

Use a Delphi technique or a modification. This involves administering a series of related questionnaires in which information from the initial form is provided so that respondents can use it to revise their responses on subsequent forms. The objective is to develop consensus before writing your outcomes.

Components of Outcomes

The essential and optional components of outcomes are described below. The essential elements are listed first. After a component is defined, the phrase that illustrates it will be extracted from the following outcome.

After analyzing and interpreting information from public opinion polls, 95% of the second quarter marketing students will be able to communicate the results in at least three different forms – written, oral, and graphic.

Essential components

Behavior: specify actions or behaviors that follow instruction and could serve as evidence that the object has been achieved; use active verbs that describe observable behavior.

Example: communicate results

Object: Identify the focus of learning-content, concept(s), skill, or attitude.
Example: public opinion polls.

Criteria for success:

Example: 95%

Target groups: specify subgroups when objective applies differently

Example: second quarter marketing student

Conditions: give information about situations in which the student will be required to demonstrate the behavior—how, when, or where

Example: after analyzing and interpreting information

Performance criteria: state any minimum level of performance

Example: in written, oral, and graphic forms

Worksheet 1: Drafting Outcomes

Department and/or Course: _____

Part 1. Place keywords in each of the component cells.

	Components				
Behaviors	Objects	Target Group	Condition/s	Performance Criteria	Criteria for Success
1.					
2.					
3.					
4.					
5.					

Part 2. Write statements that combine the components into meaningful objectives.

1.

2.

3.

4.

5.

Checklist for Evaluating Written Outcomes

The outcomes statement…

- Uses action verbs that specify definite, observable behaviors.
- Uses simple language.
- Describes student rather than instructor behaviors.
- Describes a learning outcome rather than a learning process.
- Focuses on end-of-instruction behavior rather than subject matter coverage.
- Indicates a single outcome per statement.
- Can be assessed by one or more indicators (methods).
- Is clearly linked to a goal.
- Is realistic and attainable.
- Is not simple when complexity is needed.
- Is clear to people outside the discipline.
- Is validated by departmental colleagues.

Types of Learning Outcomes to Consider

Gronlund (1981) provided the following list of types of outcomes. The list delineates many of the major areas in which instructional objectives might be produced. The specific categories were intended to be suggestive, not exclusive.

Knowledge

- Terminology
- Specific facts
- Concepts and principles
- Methods and procedures

Understanding

- Concepts and principles
- Methods and procedures
- Written material, graphs, maps, and numerical data
- Problem situations

Application

- Factual information
- Concepts and principles
- Methods and procedures
- Problem-solving skills

Thinking skills

- Critical thinking
- Scientific thinking

General skills

- Laboratory skills
- Performance skills
- Communication skills
- Computation skills

- Social skills

Attitudes

- Social attitudes
- Scientific attitudes

Interests

- Personal interests
- Educational interests
- Vocational interests

Appreciation

- Literature, art, and music
- Social and scientific achievements

Adjustments

- Social adjustments
- Emotional adjustments

Bloom's Classification of Cognitive Skills

Bloom's classification of cognitive skills is widely used in instruction planning. The six levels are arranged by level of complexity. Use of this or other classification systems is recommended to safeguard against a tendency to focus on content coverage and to ignore what the students should learn to do with content.

Category	Definition	Related Behaviors
Knowledge	Recalling or remembering something without necessarily understanding, using, or changing it	Define, describe, identify, label, list, match, memorize, point to, recall, select, state
Comprehension	Understanding something that has been communicated without necessarily relating it to anything else	Alter, account for, annotate, calculate, change, convert, group, explain, generalize, give examples, infer, interpret, paraphrase, predict, review, summarize, translate
Application	Using a general concept to solve problems in a particular situation; using learned material in new and concrete situations	Apply, adopt, collect, construct, demonstrate, discover, illustrate, interview, make use of, manipulate, relate, show, solve, use
Analysis	Breaking something down into its parts; may focus on identification of parts of analysis of relationships between parts, or recognition of organizational principles	Analyze, compare, contrast, diagram, differentiate, dissect, distinguish, identify, illustrate, infer, outline, point out, select, separate, sort, subdivide
Synthesis	Creating something new by putting parts of different ideas together to make a whole	Blend, build, change, combine, compile, compose, conceive, create, design, formulate, generate, hypothesize, plan, predict, produce, reorder, revise, tell, write
Evaluation	Judging the value of material or methods as they might be applied in a particular situation; judging with the use of definite criteria	Accept, appraise, assess, arbitrate, award, choose, conclude, criticize, defend, evaluate, grade, judge, prioritize, recommend, referee, reject, select, support

Chapter III

Using Surveys for Assessment

- **Surveys About the Department**
- **Surveys for General Education Assessment**
- **Item Construction Cautions and Concerns**
- **Examples of Flawed Survey Questions**
- **Questions and Answers About Using Surveys for Assessment**

Using Surveys for Assessment

The purpose of this chapter is to provide suggestions for designing and using surveys for assessments. Included are guidelines for constructing effective surveys as well as suggestions for how different types of surveys can meet the various assessment needs of a program or department.

A comprehensive assessment plan provides an opportunity for students, faculty, and alumni to express their perceptions of a course or program. Accrediting bodies frequently ask departments to provide input from students and alumni. Surveys are an excellent way of collecting this type of information. A survey can be locally constructed or purchased. It can be designed for specific groups such as students in a particular course, or alumni of the program. Surveys can be one page or several pages. They can be given in class or mailed. A variety of information can be obtained from a survey, as illustrated in the checklist below. You can choose which types of information will provide the most complete picture of the group you plan to survey.

Checklist of types of survey information

- Attitudes and opinions
- Values
- Experiences
- Expectations
- Needs
- Demographics (gender, race, age, residence, marital status)
- Descriptive data (gpa, ASSET scores, etc.)

Surveys About the Department

As part of its assessment plan the department/program may want to target a survey to a specific audience such as entering students, current students, exiting sophomores, alumni, faculty, or employers. Each group can provide specific types of information as suggested below.

Suggestions for Using Surveys

- Entering student surveys may be administered to students entering the program or entering a course. Surveys for entering students may ask questions such as

why students selected the program or course and what their expectations are for the program or course.

- Current student surveys may be administered to all students in the program or to a sample of students in selected courses. These surveys can help determine the perceptions and attitudes of students currently in the program.

- An exiting student survey allows the department to gather comments from graduating sophomores concerning their perceptions of the department, their immediate and future plans, and if they have been able to obtain employment or been accepted into a four-year college or university major.

- Alumni surveys allow departments/programs to determine the types of jobs their graduates are able to obtain and the skills that are necessary for the job market. These surveys provide information about entry level salaries, as well as perceptions of the department/program after being away for a time. Alumni can also reflect on the knowledge and skills gained in the program.

- Faculty surveys allow the department to determine if there is consensus on the goals and objectives of the department, if the faculty members feel the goals and objectives are being met, the strengths and weaknesses of the program, and faculty members' expectations of students entering the program.

- Employer surveys enable the department/program to determine if their graduates have the necessary job skills and if there are additional skills, which are especially sought after or give their graduates an extra "edge" in gaining the job.

Possible Survey Questions

There are several types of data that can be obtained on a survey instrument. The department may be interested in finding information about students' perceptions of the department, levels of involvement, perceived competence at various skills, students' satisfaction, employment or education status, and faculty opinions about the department.

The following are examples of questions that may be included on a survey used for the purpose of assessing the department.

Entering Students

- Why did you select this program?
- What are your immediate academic/vocational goals?
- What do you expect to gain from this program?

Current students

- Do you participate in study sessions?
- Do you participate in departmental activities?
- How satisfied are you with the program/department curriculum?

Exiting sophomore

- How satisfied are you with your program?
- How well prepared are you for the future?
- Are you planning to transfer to a four-year institution?
- Are you planning to go to work using your program skills?

Alumni Surveys

- Are you employed full-time?
- Are you employed in the area of your program?
- Are you currently enrolled at a four-year institution?

Faculty Surveys

- What do you see as the strengths of the department?
- What do you see as the weaknesses of the department?

Employer Surveys

- Does the employee have the necessary skills for the job?
- In what area is the employee best prepared?
- What are areas the program should emphasize to ensure viable candidates for a position in your field?

Degree Requirement Course Surveys *(Gen Ed)*

The main purpose of using surveys, for assessment of courses required for a degree or courses considered general education courses, is to determine if students and faculty feel that the goals and objectives of the course or degree are being met. A survey administered in a required course has questions that are about the course rather than the instructor.

Questions concerning the students' background, study techniques, academic performance, content evaluation, and faculty opinions and perceptions can provide information about these courses.

The following are examples of questions that can be included on a survey used for required courses or courses that are considered general education courses:

Student Background

How many high school courses did you take in this subject?
How would you describe your academic preparation for this course?
What was your high school GPA?
Is this the first time you have taken this course?

Study Techniques

How many hours a week did you spend studying for this course?
How often did you study for this course with someone else?

Student Performance

What grade do you presently have in this course?
How many times did you miss this class this quarter?
How would you describe your efforts in this course compared to other courses?

Content Evaluation

Did this course significantly stretch and broaden your world view?
Was this course effective in improving your understanding of your field of interest?
Was this course effective in improving your understanding of the subject?

Faculty Opinions and Perceptions

How would you define the goal and objectives (learning outcomes) of the course(s)?
Do you feel program goals and objectives (outcomes) are being met?

Item Construction Cautions and Concerns

When constructing a survey, make sure survey items and response categories:

- do not lead the respondent into giving an answer that he/she would not ordinarily give. The survey items should be stated in a neutral manner.

- may not be interpreted in more than one way.
- are not vague.
- are not too precise.
- are not too personal.
- are not likely to be endorsed by almost everyone or almost no one.
- have words that are simple, clear, direct, and uniformly understood.
- are short, rarely exceeding 20 words.
- contain only one question – avoid double-barreled questions.
- avoid words such as "only," "just," and "merely."
- are in the form of simple sentences rather than compound or complex sentences.
- avoid the use of double negatives.
- are not hypothetical.
- avoid abbreviations or unconventional phrases.
- avoid unequal comparisons among response categories.

Examples of Flawed Survey Questions

The following worksheet has survey items with item construction problems as described on the previous page. Which of the following types of errors occur in the exercise?

- vague question of response categories
- question that is too personal
- double barreled question
- overlapping response categories
- question is too precise
- question or answer categories that are biased
- double negative question
- complex wording, abbreviations or unconventional phrases

---

1. How often did you attend sporting events during the past year?
    1. Never
    2. Rarely
    3. Occasionally
    4. Regularly

Problem: Vague answer categories

2. How many books did you read last year?
_____ Number

Problem: Too much precision

3. Most people have a good understanding of the Big Bang Theory. Do you have a good understanding of the Big Bang Theory?
    1. Yes
    2. No

Problem: Bias

4. Who do you feel is most responsible when a student fails in college?
    1. The student
    2. The parents
    3. Unsympathetic faculty members

Problem: Bias, unequal comparison

5. How much money are you making?
_____ Dollars

Problem: Too personal

6. Should the course HS 104 not be offered after the year 1999?
    1. Yes
    2. No

Problem: Double Negative

7. How many plays or movies have you attended this semester?
    1. 0-3
    2. 3-6
    3. 6-10 or more

Problem: Double-barreled and overlapping categories

Questions and Answers about Using Surveys for Assessment

Q) How do we decide which group to target for a survey?

A) The answer to this question depends on who your audiences is and what they need to know. Do you want to know how students learned about your program and what they expect from it? In this case, a survey of students just entering the program is appropriate. Are you interested in exploring students' perceptions of the program and how well it met their expectations? Surveying students about to graduate would give you this information. Accrediting agencies sometimes require information about department/program alumni.

Q) How do we generate appropriate questions for a survey?

A) One suggestion would be to ask faculty members to submit survey items – what would they like to learn from the students? Some departments designate a committee or even one-faculty member to design a survey. A good place to start is by looking at surveys that have been done in departments similar to yours. Commercially prepared surveys are available from places such as the Educational Testing Service (ETS) or the American College Testing Program (ACT).

Q) How can we ensure a good response rate on our surveys?

A) One of the most crucial factors affecting response rate is the length of the survey. A survey should only take about 15-20 minutes to complete. Appearance is, of course, important and the survey should be easy to fill out, with clear and concise instructions. A cover letter that explains the purpose of the survey and assures the confidentiality of the respondents' answers can make a difference in whether a survey is completed and returned. Having the letter sent by someone they know and respect is important as is enclosing a self-addressed envelope. If you have problems getting a good return rate, contact the Institutional Research and Marketing Office for information on a 4-step process that raises response rates.

Q) Should our surveys be anonymous?

A) Whether or not you ask students to put their names on surveys depends in part on whether the surveys are to be mailed or given in class. Asking students in class to put their names on surveys could make students uncomfortable and

reluctant to respond candidly. Also the human subjects policy requires that student's know they do not have to participate if they so choose. A mail survey is less personal and, therefore, easier to ask for an identifier, such as a social security number. However, again the students must be told that giving this information is optional. There are several advantages to identifying respondents. First, identifying the respondents allows you to do a follow-up mailing and thus increase your response rate. Secondly, identified surveys allow you to match the survey data to other information that helps you describe the academic and demographic characteristics of the respondents. When the respondent is identified, be sure to stress that survey responses will be kept confidential.

Q) Should we do a follow-up mailing?

A) Follow-up mailings can be helpful in boosting the return rate - often by as much as ten percent or more. However, they do require that the respondents be identified either through a numbered label on the survey or return envelope so someone who has responded will not receive a survey twice. A follow-up mailing will also increase the cost of doing the survey.

Q) What are the costs involved in doing a survey?

A) Copying and mailing are the biggest expenses for a mail-out survey. A department may choose to do their own copying or use the campus print room. The cost of copying is affected by several factors such as the number of surveys and the style and length of the survey. Mailing costs vary depending on whether you choose to send the surveys bulk rate or first class, whether you include a postage-paid return envelope, as well as the size of the envelope. Departments sometimes choose to reduce the cost of surveying students by administering surveys in class or making them available in accessible locations such as the department office.

Q) Should we survey the entire group or just a sample of the group?

A) In deciding whether to survey all your students or a sample, you need to consider factors such as cost, available support staff, and time constraints, as well as your assessment needs. Your choice will depend in part on the size of the student population involved. A survey of students in a course that has several sections would probably require only a sample of students. Contact the Institutional Research and Marketing Office for guidelines on sample size.

Q) Should we use the traditional form of survey or one with scan sheets or a scanable survey form?

A) Using the traditional survey, in which students put their answers directly on the survey rather than on a scan card, has the advantage of allowing for open-ended responses. Students generally prefer this style of survey since it seems more personal, less like an exam. Scanable forms require a #2 pencil and need to be filled out very carefully by the respondents. On the other hand, scan sheets and cards allow for quicker data analysis, and do not require support staff to handle the data entry. Using scan cards and scanable survey forms is not recommended for mailed-out surveys since they generally cannot be folded. For more information on survey forms built to be scanable and which the Scantron reads, contact the Institutional Research and Marketing Office. This office has the software and equipment available to create scanable forms.

Chapter IV

Using Tests for Assessment

- **Questions and Answers About Using Tests for Assessment**
- **Features of Various Test Forms**
- **Test Blueprint**
- **Components of a Test Blueprint**
- **Steps for Completing a Test Blueprint**
- **Potential Resources for Locally Constructed Tests**
- **Suggestions for Reviewing an Externally-Constructed Test**
- **Item Writing Suggestions**
- **Quality of Test Items**
- **Calculating Item Difficulty and Discrimination**

Using Tests for Assessment

This chapter provides some guidelines for using locally or externally developed tests for assessment. Tips for planning and developing a test as well as for analyzing the quality of a test are included.

Questions and Answers About Using Tests for Assessment

Q) How does a test fit into an assessment plan?

A) In most cases, a test will be one part of a fully developed assessment plan. Most programs have cognitive, attitudinal, and performance goals. Tests are commonly used in association with cognitive goals - to review student achievement with respect to a common body of knowledge associated with a discipline or practice. Tools such as interviews and surveys are used more commonly in conjunction with other non-cognitive assessment techniques.

Q) When is a test a good choice for an assessment program?

A) Use of a test is a good choice when:

- The student is to demonstrate acquisition of knowledge or ability to process and use knowledge (i.e., the outcome of interest is cognitive in nature).
- The student's knowledge about a wide range of content is to be evaluated (for example, survey courses).
- Multiple observations of the content-related knowledge are needed (for example, math and foreign languages).
- A large group is being assessed.

Q) What are the major advantages of testing as an assessment technique?

A) In comparison to other assessment procedures, tests can sample student knowledge with efficiency and reliability - you can find out what a lot of students know in a brief period of time. A second advantage is that repeated use of a test will provide a means of comparison between different student groups or the same group over time. This type of testing practice provides faculty with a rich context for evaluation, decision-making, and recommendation.

Q) What are the distinguishing features of a good test?

A) At a minimum, a good test will have:

- A well-defined purpose or intent.
- A foundation based on a set of written goals and objectives.
- Some evidence that the test purpose was achieved - reliability and validity information about test items, the test as a whole, and the relationship between test scores and other indices of academic performance.
- A detailed scoring procedure that allows for specific interpretations and feedback to those tested and those making the decision.

Q) What are some strategies for creating a departmental test for assessment?

A) One common practice is to develop and adopt common pretests and post-tests in courses with multiple sections. Items for common tests could be culled from existing exams. Another practice is to determine a portion of each unit exam, a specific set of items, that are scored for program assessment and also for individual evaluation. This practice is sometimes referred to as course-embedded testing. (When using course-embedded testing, it is important to notify students how the practice affects the assignment of grades.)

Q) How is using a test for assessment purposes different from using a test in the classroom?

A) Generally, instructors develop their own classroom tests, making all decisions about when and how to construct, administer, score, and report results of tests. Construction is often done without formality or documentation. When assessment, planning, implementing, and using results becomes a group effort,

a shared set of decisions and responsibilities occurs. Consensus is emphasized. Some additional planning time, communication, and record keeping will be needed. The most frequent use of tests of instructors is to assign grades related to individual student learning. When used for program assessment, test performance is generally used along with other information to describe group achievement and is independent of grading.

Q) How can we prepare students for tests as assessment?

A) Because tests for assessment are different than tests for grading, it is recommended that you provide a brief orientation which covers the following topics:

- The purpose of the test and how results will be used
- How the students will benefit
- Whether guessing is appropriate
- Whether names and identification numbers are needed and why

Q) What is a "standardized" test?

A) A standardized test is one in which the initial construction, as well as conditions for administration and scoring, have a uniform procedure so that the scores may be interpreted in a consistent manner from one administration to the next. Test development specialists design these, either internally or externally.

Q) What are the basic steps in developing a test?

A) Seven basic and sequential steps are recommended:

- Determine the outcomes to be measured.
- Develop a test blueprint.
- Write the test items.
- Review, critique, and edit the items.
- Pilot the items.
- Obtain reliability and validity data.
- Revise, reuse, and report.

Q) What are the differences between a locally-developed and an externally-developed test?

A) Differences between locally- and externally-developed tests are described below.

Characteristics	Externally-Developed Tests	Locally-Developed Tests
Development time	None	Varies; depends on local testing practices, test development resources and expertise
Relationship between test and program objectives	Varies; test is tailored to broad-based needs	Close; tailored to local needs; adjusted as needed
Comparison groups	May include national, regional; may include norms by gender, class level, college, institution type; infrequently updated	Created and maintained locally; generally no external norms; can be modified as needed
Costs	Usually high; materials and scoring costs may be reoccurring	Usually low; can be managed with limited reoccurring costs
Results	May be long delays; little choice in type of analysis	Can be immediate; local needs/decisions drive analyses

Q) Are there any important decisions that precede test development?

A) Yes. Before a test is developed, a few decisions about use of results need to be clarified because they will have an influence on test construction. Three critical decisions are raised here.

1. Are group or individual results needed? Good questions to ask are:

   - Can individual scores be created from group scores?
   - Are individual-level data necessary for programmatic decisions?
   - Do the decisions being made affect individuals?

2. What types of item formats are needed? Items can be broadly classified as either recognition or production types. A detailed comparison of types of tests is provided in Table 1. Good questions to ask are:

    - Does the item format allow inferences about the thinking skills of interest?
    - Is there a simpler format for the information of interest?

3. Are criterion- or norm-referenced results needed? Good questions to ask follow a brief description of each type of test.

    Norm-referenced tests:
    - Provide relative comparisons.
    - Describe performance in terms of the relative position held by some known group or individual.
    - Are used to judge performance in comparison to others.

    Criterion-referenced tests:
    - Provide absolute comparisons.
    - Describe the desired student performance directly and in detail.
    - Are used to judge performance by some pre-set standard (proficiency or mastery).

    Good questions to ask are:
    - Is mastery of information or thinking skills necessary to move to a new area of study?
    - Do all students need to show a minimal level of knowledge? By a certain time?
    - Did students begin with a wide range of ability?

Table 1: Features of Various Test Forms

	Objective	*Essay*	*Oral*	*Performance*
Conditions for Use	Assess knowledge w/maximum efficiency & reliability	Assess thinking skills and/or mastery of a structure of knowledge	Assess knowledge during instruction process	Assess ability to use knowledge to create a new product
Stimulus Material	Multiple-choice, True/False, Fill-in, Matching	Writing task	Open-ended prompts	Event or directions that provide a frame for a performance or product
Student's Response	(Recognition) Select from options provided	(Production) Organize, construct, & supply	(Production) Interpret, construct, & deliver	(Production) Plan, construction & deliver original response
Scoring	Count correct answers	Judge understanding	Determine correctness of answer	Apply attributes, checklists or rating scales to describe performance or proficiency
Major Strengths	Efficiency -- can sample broad content range	Gets at complex thinking	Immediately links assessment and instruction	Provides rich evidence of performance skills
Potential Weaknesses	Poorly written terms, over-emphasis on factual recall, poor test-taking skills, failure to obtain a representative sample of content	Poorly written exercises, confounded with knowledge of content, poor scoring procedures	Poor questions, students lack of willingness to respond, too few questions	Poor exercises, too few samples of performance, vague criteria, poor rating procedures, poor test conditions
Influence of Format on Learning	Can require complex thinking skills but may focus on simple thinking skills	Encourages thinking and development of writing skills	Stimulates participation in instruction, provides immediate feedback	Emphasizes use of skill & knowledge application in problem context
Keys to Successful Use of Format	Clear test blueprint, item writing skill, ample construction time	Carefully prepared writing prompts & model answers, ample scoring time	Clear questions, systematic sampling procedures, ample time for response	Clear performance criteria, clear rating scales, ample rating time

Adapted from: Stiggins, R. J. (1987), p. 35.

Test Blueprint

Tests that are soundly constructed are built to meet specifications just as a house is built according to a plan. The plan for a test is frequently called a test blueprint (also called a table of specifications or a test matrix). Two dimensions are laid out as the columns and rows of a two-way table. At the intersections between the rows and columns, the number of items needed to test the area (or percentage of importance) is recorded. A simple example is provided in Figure 1.

Figure 1. Example of a Test Blueprint for an Early American History Test

Discipline/Topic: Early American History

Content Process: Levels of Thought Total

Historical Periods	Recall Facts	Comprehend Concepts	Apply Facts & Concepts	
Exploration	10 (20%)	5 (10%)	1 (2%)	16 (32%)
Colonization	10 (20%)	5 (10%)	1 (2%)	16 (32%)
Revolution	12 (24%)	5 (10%)	1 (2%)	18 (36%)
Total	32 (64%)	15 (30%)	3 (6%)	50 (100%)

Things to notice in the blueprint shown in Figure 1.

- The distribution of items by content areas is relatively equal although there is a slightly greater emphasis on Revolution – 36% versus 32% in each of the other two areas.

- The process that appears to be most important is Recall of Facts - 64% versus 30% or 6% of the items.

- Because of the fairly equal distribution of emphasis on three content areas and the heavy emphasis on knowledge of factual information, this test might be used early in a term as a review or as a pretest with new learners.

Components of a Test Blueprint

Content areas, thinking processes, and importance specifications are given in test blueprints. Using the steps below and the blank test blueprint (Exercise 1) a practice test blueprint can be drafted.

Exercise 1. Creating a Sample Test Blueprint

Discipline/Topic: _____

Content	Process: Levels of Thought			Total
	1:	2:	3:	
1. _____ _____	_____ (%)	_____ (%)	_____ (%)	_____ (%)
2. _____ _____	_____ (%)	_____ (%)	_____ (%)	_____ (%)
3. _____ _____	_____ (%)	_____ (%)	_____ (%)	_____ (%)
Total	_____ (%)	_____ (%)	_____ (%)	_____ (%)

Steps for Completing a Test Blueprint

1. First, identify the discipline/topic area to be addressed by the test in the blank provided.

2. Next, define the test's content areas. Along the left column, list at least 3 general content areas from your discipline.

3. Now, define the intellectual processes to be assessed. Along the top row, list at least three intellectual processes.

4. Finally, define the importance of the test content areas and processes to the overall test. Enter the number and/or percentage of items in the blanks where content areas and processes overlap. The values should reflect the importance of content/process relationships as conveyed in the curriculum and instruction.

Suggestions for Developing Test Blueprints

- Refer back to the goals and objectives written for the assessment plan.

- Assign priorities to goals and objectives so that the most important content areas and thinking skills are addressed by your test.

- Remember that a test provides a sample or samples of behaviors and should be combined with other information about performance.

Functions of a Test Blueprint – A Summary:

- Helps achieve balance between instruction and assessment.

- Reduces tendency to test "memory of facts" only.

- Helps ensure that a test will sample all important content and process areas.

- Provides a structure for communicating with students before and after testing.

- Provides structure for analyzing, summarizing, and reporting results.

Potential Resources for Locally Constructed Tests

Internal:

- Unit tests or finals from individual sections of a course
- Departmental tests - retired and current
- Student generated items - however, the items usually need revision

External:

- Curriculum materials that accompany textbooks may provide unit/chapter tests and item banks.
- Professional agencies associated with a discipline may have retired tests or item banks related to certification or licensing exams.
- Colleagues teaching at other institutions may have developed instruments/items for similar needs.
- Test companies sell published instruments and item banks.
- Journals that focus on teaching of the discipline sometimes contain unpublished tests. Social science and education journals that focus on instructional practice are good sources.

Suggestions for Reviewing an Externally-Constructed Test

- Remember that it is unlikely there will be 100% match between an externally-constructed test and local curriculum and instructional practice.
- Before adoption, all tests need to be examined in terms of:
    - The match between the purpose for which the test was designed and the local needs based on stated student learning outcomes
    - The correspondence between the test blueprint and content of related items
- Review the technical merits of the instrument. Look and/or ask for the following:
    - Norms/technical manual
    - Test blueprint
    - Information about item development
    - Evidence of reliability and validity
    - Relatively current norms, information about norm groups

- Pilot the instrument with a small group before commitment to full-scale use.
- Call other users - publishers should provide a list of contacts.
- Always check costs before use: usable/non-reusable materials, scoring (local or external), and reports.

Item Writing Suggestions

This section contains general item writing tips as well as specific tips for various item types.

Suggestions for All Item Types

- Write items directly after instruction when possible.
- Write more items than are needed - 25% more is a good rule of thumb.
- Keep reading and vocabulary levels simple unless you are testing those skills (i.e., avoid superfluous wording).

Item Stems (definition: the part of a test item that poses the question or sets up the problem situation; the stimulus)

- Make sure the problems posed in the item stems are clear and unambiguous.
- Use "concrete" situations and pictorial, graphic, or tabular stimuli when possible.
- Use novel material in formulating problems to measure higher level mental processes (i.e., analysis and application type items); however, guard against overuse of this strategy.
- Avoid lifting statements verbatim from a text unless your intention is to test memorization skill or knowledge for simple and basic information.
- Avoid single and double negative items; phrase in a positive format if possible.
- Be careful of clues and answer cues within the item stem.

Item Responses

- Avoid noun modifiers like "all," "never," "no," and "always."
- Order the response options in some parallel way (e.g., alphabetically, chronologically), but avoid creating response patterns (e.g., an alternating true-false pattern, overuse of the "C" option in a set of multiple-choice items).

Suggestions/Checks for Multiple-Choice Items

- Avoid highly technical response options.
- Avoid having the correct answer longer than the incorrect options.
- Use responses that are plausible and homogeneous in some way.
- Use between three and five options. Try to use the same number of options for all items; however, do not create superfluous options just to maintain a parallel format.

Suggestions/Checks for Matching Items

- Provide more choices than number of statements to be answered unless a choice can be used more than once.
- Have students choose answers from the column with the least amount of reading.

Suggestions/Checks for True-False (Alternative Response) Items

- Avoid ambiguous and indefinite terms of degree or amount (i.e., "frequently," "in most cases," etc.).
- Avoid negative and double negative statements.
- Keep true and false statements approximately the same length.
- Have approximately the same number of true and false items on a test.

Suggestions/Checks for Writing Completion or Short Answer Items

- Draft items that require a single-word answer or a brief and definitive statement.
- Avoid statements that may be logically answered by several terms.
- Indicate the unit of expression (i.e., date, percentage) when answers require numerical information.

Suggestions/Checks for Writing Essay Items

- Select items carefully because of the limited number that can be given in a single time frame.
- Make items clear and specific so that scoring can be done easily.
- Establish a framework within which the student will write.

1. Limit the area covered by an item.
2. Indicate the value of items and suggest time parameters.
3. Decide, in advance, the factors considered in evaluation and note them in the instructions.

Quality of Test Items

Analyzing the quality of test items can be accomplished in phases. Some general suggestions follow:

1. Before the test is used (pilot tested), ask faculty members to check for the following:

   Congruence between test content and test blueprint
   - Do items reflect the specified topic weights?
   - Do items measure the range/emphasis of cognitive abilities specified?

   Clarity of directions

   Use of good item construction practices

   Accuracy, specificity, and emphasis of scoring/rating procedures

2. After a test is given for the first time (pilot tested) refer to the following checklists:

   If using an objective test format, check for:
   - Item difficulty
   - Item discrimination

   If using other formats, check for:
   - Consistency of application of scoring criteria by those doing the rating

     Have a sample of responses scored by a second evaluator.
     Have a sample of responses scored in a different order and at a different time.

Calculating Item Difficulty and Discrimination

Before test scores are interpreted or used for decisions, it is essential to review how well the items functioned. Calculating item difficulty and discrimination values is recommended practice.

Difficulty Index (P value):

An items difficulty index is expressed as the proportion of students who responded correctly (successfully) to an item. If scores from all students in a group are included, the difficulty index is simply the total percent correct. When there is a sufficient number of scores available (i.e., 100 or more) difficulty indexes are calculated using scores from the top and bottom 27 percent of the group.

The value is interpreted in an inverse way, that is, a high value is interpreted as less difficult. These values range from 0 to 1.00 and are usually expressed as a percentage.

Item difficulty is calculated in the following way:

$$P = \frac{\text{Successes in the HSG + Successes in the LSG}}{\text{N in HSG + LSG}}$$

(HSG=high scoring group
LSG=low scoring group
N=number)

Item difficulty is generally interpreted in the following way:

P – Value	Percent Range	Interpretation
> or = .75	75-100	Easy
< or = .25	0-25	Hard
between .25 & .75	26-74	Average

Example:
Item: Who is the current host of the Tonight Show?

A. Johnny Carson
B. Arsenio Hall
C. David Letterman
D. Jay Leno

Groups	A	B	C	D*	Total
High Scorers	0	1	1	8	10
Low Scorers	1	1	5	3	10
Total	1	2	6	11	20

P = (8+3)/(10+10) = 11/20 = .55

Interpretation: This item is average in difficulty. Slightly more than half of the students got the item correct.

Discrimination Index (D value):

An item's discrimination index is expressed as the difference between high and low scorers. The value is interpreted in terms of both direction (positive or negative) and strength (non-discriminating to strongly discriminating). These values can range from –1.00 to +1.00.

Item discrimination is calculated in the following way:

$$D = \frac{\text{Successes in the HSG}}{\text{N in HSG}} - \frac{\text{Successes in the LSG}}{\text{N in LSG}}$$

(HSG=high scoring group
LSG=low scoring group
N=number)

Item discrimination is generally interpreted in the following way:

D-Value	Direction	Strength
> +.40	positive	strong
+.20 to + .40	positive	moderate
- .20 to + .20	non	-
< - .20	negative	moderate to strong

Refer to Previous Example

P = (8/10 – 3/10) = 5/10 = .50

Interpretation: This item is positive and strongly discriminating. A larger number of high, rather than low-scoring students, correctly answered the item. For more information or further resources on this subject, please contact the Office of Institutional Research.

Other Features to Consider

The pattern of incorrect responses is another feature of item analysis. Ideally, each incorrect response should be selected by a higher percentage of low- than high-scoring students. In the previous example few students selected responses A and B; these options do not provide much information about student knowledge and should be revised.

The relationships of difficulty and discrimination patterns to intended test purpose is a critical aspect of item analysis. The table below outlines how the majority of items should function for norm- and criterion-referenced tests.

Table 3. Relationships Between Item Analysis Indices and Test Purposes

	Test Purpose	
	Norm-referenced	Criterion-referenced
Item difficulty	Depends on the number of response choices; generally around .50	Depends on level of mastery require, generally < or = .75
Item discrimination	Should be > or = .20; should be answered correctly by students with high total scores and incorrectly by students with low total scores	Should be non-discriminating between +.20 and -.20

Analyzing the Quality of a Test

Analyzing the quality of a test involves an examination of validity and reliability characteristics of the test. Some basic definitions and critical concerns are reviewed below.

Validity:

- Is the most important quality of a test
- Does not refer to the test itself.
- Generally addresses the question: "Does the test measure what it is intended to measure?"
- Refers to the appropriateness, meaningfulness, and usefulness of the specific inferences that can be made from test scores.
- Is the extent to which test scores allow decision-makers to infer how well students have attained program objectives.

Table 4. Two Important Types of Validity

Type	Definition	Validity Threatened by	Prevention & Checks
Content	Extend to which a test adequately samples program objectives.	Poor relationship between test items and program objectives.	Use and review of test blueprint.
Construct	Extent to which a test measures the amount learned and not some other extraneous variable.	for objective tests poorly constructed items that measure test-taking skill rather than mastery of material.	Use of good item writing practices. Development of good rating criteria: train for & check on raters' consistency.
		for other test formats: problems with raters and scoring procedures	Check correlations with other related & unrelated information (i.e., ASSET and GPA's).

Reliability:

- is the degree to which test scores are free of errors of measurement due to things like student fatigue, item sampling, and student guessing?
- of objective tests is threatened by poor item construction.
- of other test formats is threatened by rater or scorer variability and inconsistent application of scoring/rating standards.

Chapter V

Using Performance-Based Measures for Assessment

- **Types of Performance-Based Assessment**

  Portfolios
  Performance Measures

- **Questions and Answers**

Using Performance-Based Measures for Assessment

While tests and surveys remain the most popular assessment instruments, many departments are beginning to recognize the value of assessment that is based on student classroom activities. This chapter explores different types of performance-based assessment activities and discusses ways to maximize their effectiveness.

Performance-based assessment is the process of using student activities, rather than tests or surveys, to assess skills and knowledge. Class assignments, auditions, recitals, projects, and others, while intended to evaluate the individual student, can be reviewed as a whole (using all or a sample) to evaluate the course. What does overall student performance on these assignments tell you about your course(s)? While performance-based projects can be designed specifically for assessment, you might consider using existing classroom projects as assessment tools.

The last couple of years have seen remarkable growth in the use of portfolios and other types of performance-based assessments. These activities are being used in conjunction with tests to provide a complete picture of student skills and abilities, rather than simply relying on one test score. A student's health, personal life, or even the weather can adversely affect test scores. Critics of testing also point that tests, particularly multiple choice tests, don't provide sufficient opportunity for students to think through what they are doing, or to want to do their best. Portfolios and other forms of performance-based assessments, on the other hand, invite the student to show his or her "best" work (Belanoff & Dickson, 1991, p. xvi).

Types of Performance-Based Assessment

- Portfolios
- Performance measures
- Unobtrusive measures (see Chapter VII)

Portfolios

Collected examples of student work over time.

Though the use of student portfolios has a long history in disciplines such as art, it is rapidly gaining popularity in other areas, particularly in the assessment of writing skills. While portfolios are frequently used to evaluate an individual

student's progress, they are also useful in allowing a department to take a critical look at overall performance of students in the program.

Possible items to include in portfolios:

- Exams (multiple choice and essay)
- Research papers
- Essays
- Projects
- Videotapes
- Audio tapes

Suggestions for Using Portfolios:

- A department could keep portfolios on a sample of students in selected classes. Faculty members could then rate the portfolios according to the goals and objectives of the departmental outcomes.

- Students could be asked to maintain portfolios as they progress through their general education courses.

- To assess writing skills as a general education outcome, a department could choose to keep samples of student writing from all the courses in the department. Are students getting ample opportunity to write? What types of writing assignments are being required? How does the writing ability of students improve in a series of classes? Is there one particular class in the program that seems to have a significant impact on the writing skills of the students?

Performance Measures

Using examples of students' writing, presentations, or projects for assessment.

Again, looking at overall student performance on these types of classroom assignments can tell you a great deal about your courses. You can learn a tremendous amount from just a few projects if you choose the right projects.

Suggestions for using performance measures for assessment:

- A common writing assignment, such as an essay or research paper, can be used to examine more than one aspect of a course. An initial reading of a paper can assess students' understanding of the course content. A second reading could evaluate writing skills, while a third reading could explore critical thinking skills. Similarly, a computer project can be used to evaluate both students' knowledge of course content as well as the level of computer competency.

- Samples of students' art or photographic work could be displayed on a classroom wall. Faculty members can then examine the work against a set of criteria and make judgments about the strengths and weaknesses of the program.

- If students are required to perform, as in a drama, music or speech course, the performances could be videotaped. A team of faculty members could review a sample of the performances against a set of criteria.

Questions & Answers on Performance-Based Assessment

Q) What is the first step in establishing performance–based assessment?

A) Begin by asking faculty members to answer two questions:

- What outcomes do we value?
- How would we identify a successful student in our course(s)?

Aubrey Forrest, Director of Assessment and Educational Measurement at Emporia State University (Forrest, 1990, p. 5), makes the following suggestions for prioritizing outcomes for portfolios, but his remarks have general applicability to other forms of assessment as well:

1. Begin by collecting a representative range of student work – from marginal to outstanding – and determine what learning appears to be taking place and what is not. This can be the basis for a discussion of what the most important intended outcomes ought to be.

2. Identify a group of "exemplary students," collect their course work or observances of their performances, ask the students to describe what experiences in the course helped them the most and then do an analysis of the interviews and course work.

3. Concentrate on one or more outcomes of your program for which portfolios or performances seem most useful or appropriate. Some outcomes, such as reading or computation skills, may have been adequately assessed already. Higher-order or more complex outcomes may be more appropriately assessed by a performance-based process.

4. Base the evaluation on an existing official statement of intended outcomes such as your goals and objectives for the course. Build your assessment around this detailed statement of goals and guidelines.

Q) Who needs to be involved in performance-based assessment?

A) This will vary with departments. Many assessment techniques, by their very nature, don't allow many opportunities for discussion and debate among faculty. Frequently these activities are designed and implemented by one, maybe two, faculty members. Performance-based assessment, though, as one writer puts it, "practically begs for conversation" (Belanoff & Dickson, 1991). Getting faculty members together to discuss what constitutes, for example, a successful student can be thought provoking and enormously rewarding.

Q) What are the advantages of performance-based assessment?

A) Assessment activities that are separate from the daily teaching routine of the department can be perceived by students and faculty as intrusions. Performance-based assessment builds on the daily work (assignments, exams, projects) of students and faculty. Probably the biggest problem faced by those conducting assessment activities is student response – not only getting students to participate in "voluntary" activities such as assessment tests and surveys, but getting them to do their best. While students are usually highly motivated to do their best when working on something that will count toward their grade, they are less likely to do so on an activity, which will not affect their grade. Using actual class projects means getting results from students who were probably motivated to do well.

Q) Should we use students' best work or choose from a range of grades?

A) Actually either way is fine – the questions is, which will best suit the department's purpose? Since students' "best" will vary, you can learn a lot about your program from looking at those assignments which earned the highest grades. What differences do you see in these samples of work? Why are some students' "best" works better than others? On the other hand, selecting from a wide range of

grades will say something as well. What is failing, average, or excellent work in your courses? Is there commonality among each of these ranges that gives some clue as to who is doing what kind of work and why?

Q) Should we collect work from all our students or just a sample?

A) This depends on the size of your student population as well as the type of project being used. If you have only one or two sections of thirty students each, then perhaps you could keep portfolios or do performance reviews for each of them. If, though, you have eight sections with anywhere from 40 to 90 students in each, a sampling of students is sufficient.

Q) Who decides which items or projects go in portfolios or are used for performance assessment – students or faculty?

A) The type of assessment being done determines this. In some cases, faculty members will ask the students to select what they (the students) consider to be their best work for inclusion in their portfolios. In other situations, the instructor may provide a list of class assignments or exams that are to be included in portfolios. The department may choose to create the portfolios themselves, rather than asking the students to do it. Either way, students probably have a right to know what you are doing and why.

Q) Who should see the materials in portfolios?

A) This is, again, a matter for the department to decide, depending on what your purposes are. It could be a committee only who sees the materials, or it could be open to all faculty members, advisors, and even students.

Q) How do we know if our assessments are reliable?

A) Aubrey Forrest suggests that reliability means the extent to which:

1. The evaluators agree on the analysis of the portfolios or performances.
2. These same evaluators would make the same decisions at another time.
3. These evaluators would agree with another group of evaluators.

Q) What are the standards for rating performance-based materials?

A) Once the intended outcomes for the course have been identified, the faculty will need to set the standards for the evaluation of the portfolio materials or performance measures. For example, the faculty may decided that the course is doing what it is intended to do if 30% of the students' materials or performance are rated at least 3 on a 6-point scale, 30% rate 4, and so on. A course might be judged successful if the average for the group is at least 3 on a 6-point scale. The important thing is that there is consensus among faculty members. Performance-based assessment is most effective if faculty members agree on the intended outcomes of the course or project, as well as the standards set for the evaluation.

Chapter VI

Uses of Institutional Data for Assessment

- **Using Student Data to Enhance Survey Data**
- **Using Student Data to Enhance Test Data**

Uses of Institutional Data for Assessment

This chapter explains some of the institutional and student data that are available for use within an assessment plan. Information that can be used to describe a particular class, to enhance survey data or to enhance test data is discussed.

Various data are routinely collected at the college level that can enhance and further explain assessment data collected by departments. Two types of data exist: class and student.

What departmental data is routinely available?

Student credit hours - by course and by department
Enrollments - by course and by department
Faculty full-time equivalents - by course and by department
Number of sections taught - by course
Grade spread - by course and by quarter and by academic year
Number of degrees produced - by department/program
Class size - by course and by department
Running Start enrollment - by administrative unit, course and by department
Gender by Academic Year - by department
Age by academic year - by department
Age, gender, ethnicity by academic year - by department
Gender by quarter - by department
Ethnicity by year/quarter - by department
Age by quarter - by department
Age, gender, ethnicity - by quarter and by department
Alumni survey data - by department

Possible Questions for Using Data with Course-Related Assessment

- Is this a popular course? What is the enrollment trend for this course?
- Are the students performing at the expected grade level?
- Are the class sizes too large?
- Are the classes being taught by full-time or part-time faculty?
- Did the course affect program enrollment?
- Does the course attract students to take other courses in the department?

Suggestions for Uses of Data with Program-Related Assessment

- Is the program growing or shrinking?
- What are the grades being given by faculty in the department?
- What percent are retained in the (vocational) program?
- What percent of students graduate from the (vocational) program?
- What percent of students are employed from the (vocational) program?

Available Student Data

Basic Information

Student name
Gender
Ethnicity
Date of Birth
Resident Status
Citizenship
Entry Data
ASSET scores
High School name
Date of High School graduation
Credits attempted
Credits earned
Credits transferred in
Course enrollment data
Grade point average
Hours registered per quarter
Degree attainment by program
Year degree awarded
Program
Quarter entered program
Purpose for attending
Advisor name
Major, if designated
University of choice, if designated

Using Student Data to Enhance Survey Data

A department may decide to administer an attitudinal survey to students enrolled in Office Technology 201. To match survey responses with student database information, the survey will need to ask each student to provide their social security number keeping in mind that the human subjects policy requires letting the student know that giving his/her social security number is optional. The following tables are samples of possible correlations of survey responses with information obtained from the student database.

Office Technology 201
Survey Responses – Fall 1999

Question:

This course has shown me practical applications of using spreadsheets.

GPA Ranges	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree	Percent Total	N
No GPA	19.6	62.7	8.5	9.2		100	153
<1.0	11.1	68.9	15.6	2.2	2.2	100	45
1.0 – 2.0	4.5	59.1	31.8		4.5	100	22
2.0 – 3.0	6.3	75.0	18.8			100	16
> 3.0	25.0	50.0	25.0			100	4

Question:
This course has increased my understanding of spreadsheet theory.

Credits Taken w/department	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree	Percent Total	N
< 10	20.0	30.0	40.0	10.0		100	10
10-45	26.1	39.1	21.7	4.3	8.7	100	23
45-80	5.7	51.4	25.7	11.4	5.7	100	70
80+	5.3	49.3	25.3	20.		100	75

Using Student Data to Enhance Test Data

A department may decide to correlate test results with information about the students who took the test. Again Social Security numbers may be needed to get the information.

Math 101
Final Exam – Fall 1999

	Mean Score	Low Score	High Score	N
All Students	77.2	40	99	565
Gender				
Male	75.3	40	99	259
Female	78.9	45	99	306
Part Time	74.2	40	89	225
Full Time	80.3	61	99	340
Designated Major				
Biology	77.5	60	96	47
Business	79.0	40	99	106
Education	76.1	40	94	75
Arts	75.0	45	90	35

Chapter VII

Other Assessment Techniques

- **Interviews**
- **Focus Groups**
- **Unobtrusive Measures**
- **Review of Curriculum Materials**
- **Anecdotal Records, Logs, and Journals**
- **External Examiners**

Other Assessment Techniques

There are many assessment techniques that can provide useful information, particularly when used in conjunction with the more traditional methods described in the previous chapters. This chapter discusses several of these techniques and how they can be used to enhance your assessment efforts.

Interviews

Gathering information in a focused, one-on-one conversation.

Use interviews when:

- You want information on a broader scale than a paper and pencil survey might allow you to obtain.
- You want to explore issues of concern to the department.
- You want to get information to design a paper and pencil survey.
- You want more personal contact with long-distance students than a mail survey would permit.

Types of interviews

- Standardized interview with closed responses: In this type of interview, a set of standardized questions is prepared and asked of each participant. The role of the interviewer is simply to ask the questions and record the responses. The only information that is gathered is that which is specifically asked for, almost a verbal version of a paper and pencil survey.

- Standardized interview with open responses: This type of interview also relies on a set of standardized questions, but the questions are designed to elicit open-ended responses and the participant is encouraged to talk at length on the items. The interviewer uses the questions to guide the interview.

- Non-standardized interview: This last method is essentially a conversation between the interviewer and the participant in which they agree to discuss the participant's views of the subject matter. There is no set of questions to be asked – the interviewer merely probes the participant on his/her opinions or perceptions on a particular issue or topic.

Suggestions for Using Interviews:

- Faculty members can be interviewed on their perceptions of the strengths and weaknesses of the department or of a particular program within the department. The department could generate the questions for the interviews or suggest the topics that they would like to have covered. A person from outside the department could be called in to administer the interviews and summarize the results.

- A telephone interview can be conducted with department/program alumni.

- Graduating seniors can be asked to participate in an individual exit interview.

Focus Groups

A form of group interview is where a researcher supplies the topics and monitors the discussion. The emphasis is on group interaction to share insights and ideas.

Use focus groups when:

- You need to get feedback from a small group of people.
- You need a non-threatening format for a discussion.
- You want to facilitate discussion among a mixed audience, such as the students, alumni, and faculty of the department.

Focus groups allow a small group of people to discuss at length, in a non-threatening environment, a pre-designated topic. The dialogue is usually led by a moderator who works to keep the discussion focused on the chosen topic. For assessment purposes, the subject of a focus group could be: the perceived effectiveness of a course or program; designing a department assessment plan; the implications of the results of assessment activities.

Suggestions for Using Focus Groups:

- Department faculty can keep notes on what and how students in their classes are learning and then share their ideas and experiences with their colleagues.
- To facilitate faculty involvement in designing an assessment plan, faculty members can be asked to respond to such questions as: "How would we

identify a successful student in our course(s)?" or "What outcomes do we value?"

- The department can ask a group of their graduating students to meet with faculty members to discuss the perceived strengths and weaknesses of the program. What did the students experience in the program? Where did they have problems? From what experiences did they gain the most? If they had a chance to do it over, what would they do differently?

Unobtrusive Measures

Observation or keeping records of students' use of facilities and services. This form of assessment provides data that can be correlated with test scores and/or course grades.

Use unobtrusive measures when:

- You are interested in how students study.
- You are concerned about the effectiveness of study sessions or other supplements to classroom activities.
- You are focusing on the relationship between out-of-class behavior and in-class performance.

While test scores and survey results can indicate how much students are learning and how they feel about that process, observing the behavior of students can tell you quite a bit about "how" they learn. What do students do outside the classroom? Which out-of-class behaviors and activities seem to lead to better in-class performance?

Suggestion for Using Unobtrusive Measures:

- An indicator of student participation in a course can be how frequently students are using services such as study sessions, computer labs, reserved supplemental readings in the library - even tracking class attendance can be useful.

- A department can determine how frequently students attend museums, concerts, plays, recitals, lectures, etc.

- It may be helpful to a department to know how frequently students visit their program advisor, or other faculty members. Are successful students more likely to seek advice or guidance? Of interest, too, may be how often students in the department make use of facilities such as the Learning Opportunities Center or tutoring services.

Review of Current Curriculum Materials

Systematic review of course syllabi, textbooks, exams, and other materials.

Use curriculum materials when:

- You want to clarify learning objectives.
- You want to explore differences and similarities between sections of a course.
- You want to assess the effectiveness of instructional materials.

Basic to any instruction are the materials used in the classroom - textbooks, handouts, exams, etc. A review of these provides invaluable information to enhance any assessment effort.

Suggestions for Using a Review of Curriculum Materials

- Faculty members can review the current course syllabi to determine if the course is meeting the goals and objectives that were established for it.

- A review of the course exams for the different sections might reveal enough standardization of exam items to allow those exams to be used to assess the course. For example, five different instructors who are each designing an exam for their section of a course could be asking similar questions on common subjects. Those common items could be used as an assessment tool much the same as if a standardized exam had been administered to all five sections.

Anecdotal Records, Logs, and Journals

Maintaining records of classroom activities, students' responses, or faculty impressions.

Use anecdotal records when:

- You are concerned with how students and faculty react to particular instructional methods.
- You are piloting new textbooks or other materials.
- You are interested in students' perceptions of certain aspects of the course.

While assessment usually relies on systematic collection of information, often the more informal observations prove useful. What is going on in the classroom? What works and what does not?

Suggestions for Using Anecdotal Records, Logs, and Journals

- Faculty members can maintain journals on their experiences in the classroom. If, for example, a new textbook is introduced, a journal can be kept to record the student's responses to the book, as well as the instructor's reaction.

- Students can be asked to evaluate visiting speakers or instructors.

- Faculty members can ask students to write reaction papers in response to classroom activities, videotapes, field trips, etc. Did students find the activities helpful? How could the activities be improved?

- Areas that provide services, such as Student Services will find anecdotal records, logs and journals particularly helpful.

External Examiners

Using an individual or group of individuals from outside the department/program to provide an objective assessment of a course or program.

Use examiners when:

- You need an objective observer of your program.
- You want an assessment expert to provide insight and advice.

Asking someone from outside the department or college to observe and respond to particular aspects of a program or course can yield valuable information that could not otherwise be obtained.

Suggestions for Using External Examiners

- A department may invite a member of the English faculty in as a consultant to provide insight into the department's use of writing in the discipline. The consultant can answer questions such as: Does the program provide ample opportunities for students to write? How can the department increase those opportunities? How could the department effectively assess their students' writing ability?

- An external evaluator from another college can be invited to moderate a focus group or to assist a planning session on designing a departmental assessment plan.

Chapter VIII

Reporting and Using Assessment Results

- **Uses for Assessment Results**
- **Questions and Answers on Reporting and Using Assessment Results**

Reporting and Using Assessment Results

The purpose of this chapter is to discuss the various ways that assessment results can be reported and used by departments.

When reporting the results of department assessment activities, the first questions a department needs to ask are: "Who is our audience?" and "What do they want to know?" The kind of report expected for departmental outcomes assessment may be completely different from what a program professional accreditation review may require.

For some reports, it may be necessary to discuss the statistical analysis and the results. Other types of reports may simply require submitting the list of your department's outcomes, their measurements (how well you did), what your criteria for success was, and how you plan to use the results.

Checklist – To whom are we reporting results?

Accrediting bodies
Division deans
Federal agencies
College curriculum committee
Department planning committee
Alumni
Colleagues at other colleges
Conference presentations
Students

Uses for Assessment Results

A question frequently asked by department faculty members is "How can assessment data be used?" The following are suggestions for different ways that assessment information can be beneficial.

Primary uses:

- Accreditation reports and reviews
- General education assessment
- Curriculum review

- Assessment results can be distributed to faculty members to encourage a discussion of perceived strengths and weaknesses of the department or to generate ideas.
- Requests to the Curriculum Committee
  Assessment data may accompany requests to a college curriculum committee for additional courses. For example, an alumni survey might reveal that the department's graduates find themselves lacking a particular skill required for the market. The department could use the results of the survey to support a request for a new course to teach that skill and to give graduates a more competitive edge.
- Requests for budget increases
- Outcomes assessment report to Division Dean
- Program review

Secondary uses:

- Recruiting
  Findings about the satisfaction of current courses or programs can be used to recruit new students to the program.
- Program brochures.
- Publications – assessment results can be shared with other institutions.
- Career Services
  There is a growing interest in the successful marketing of graduates. Department alumni surveys can demonstrate to prospective employers why graduates from that program are more skilled and better qualified than graduates from similar programs at other colleges. This can be done on a departmental or institutional level.
- Securing grants.

Questions and Answers on Reporting and Using Assessment Results

Q) How can we make sure that the results of our assessment activities are used?

A) The first step in assuring that results are used is to share them with department faculty members. A written report could be prepared and distributed to the faculty. Faculty members who were involved in the assessment effort could present their findings at a department or division meeting. Departments could establish yearly planning retreats just for the purpose of discussing their assessment results. The results of your assessment activities can be used to generate a discussion among

the faculty. What does the report tell you about your course or program? What possible changes are indicated? How could the department use the results to the best advantage? Depending on the department's assessment needs, further reports or presentations could be prepared for different audiences.

Q) What's the best way to share our findings?

A) The first step in sharing assessment results is usually to prepare a written report that can be distributed to both faculty members within the department and constituents external to the department. The type of assessment activity implemented and the audience for whom the report is prepared will determine the format of the report. For most audiences, a simple descriptive report is best.

Q) What should be included in an assessment report?

A) Depending on the audience, an assessment report should include enough information to answer four basic questions:

1. What did we do?
2. Why did we do it?
3. What did we find?
4. How will we use it?

Q) In reporting what we found, do we need to report actual data or the interpretation of the data?

A) This depends on your audience. Some Deans may require the department to record actual findings from outcomes assessment projects. Other reports may call for a summary of findings – the implications of your assessment results.

Q) Do we have to report everything?

A) In most circumstances the department will choose what is to be reported. In addition to the expected results of an outcomes assessment project, there are often unexpected results. While you may be required to report the expected results (i.e., placement rate of graduates), the unexpected results may be useful only to the department. For example, an alumni survey may reveal that graduates are getting jobs in one particular type of firm or company. This information could allow the department/program to zero in on what job skills

their graduates have that are making them so marketable with these companies. While useful to the department, this information may not be of interest to constituents such as accreditation teams or college curriculum committees.

Q) What is the best way to display assessment results in reports?

A) For most purposes, if survey results need to be visually displayed, simple frequencies will suffice - tables that indicate the number and percents of responses for each category of the survey question. Test and survey results that are cross-classified with information obtained from the student database such as GPA or ASSET scores can also be presented in tables. For more detailed reports, you can use graphs or pie charts to illustrate findings. As with other aspects of assessment, the types of visual displays you use depends on the kind of assessment project and the audience for whom it is done.

Q) How long do we need to keep our results?

A) It is a good idea to keep assessment results for a few years. Departments often find it useful to do longitudinal studies of assessment projects. What trends or patterns are revealed when looking at responses from alumni or graduates over time? As the job market, the economy, technology, or even the department itself changes with time, so will the results of assessment activities. Also, many assessment evaluations are on cycles. The Outcomes Assessment reports are yearly. Accreditation is on a 10 year, five year, two year (CBC's next report due), or in some cases one year. Similarly, some departments do alumni surveys annually, while others may prefer to do them every five years. The Office of Institutional Research does an annual alumni survey on the previous year's graduates. To know what has been done before, to learn from past mistakes, or to do longitudinal studies, it may be advisable to keep the results of assessment projects for a period of three to five years.

Appendices

A. Institution-Wide Surveys

B. Worksheet to Determine Linkages between Purpose Statement, Departmental Outcomes, Results, and Use of Results

C. Examples of CBC Departmental Outcomes Assessment Forms

D. Blank Departmental Outcomes Assessment Forms

E. Assessment Timeline for Gathering and Presenting Assessment Reports

F. References and Further Reading

Appendix A

Office of Institutional Research and Marketing Surveys

This is a brief summary of college-wide surveys administered by the Office of Institutional Research and Marketing. The results from these surveys may provide departments with information that can be used in conjunction with the department's assessment activities.

Alumni Survey for AA Graduates

This survey is administered yearly to the previous year's graduates and includes demographic, instructional, student services related, student satisfaction, transfer information, and general education information. If a department would like to include a separate list of questions for a sub-set of students, contact the IR Office.

Alumni Survey for AAS Graduates

This survey is administered yearly to the previous year's graduates and includes demographic, instructional, student services related, student satisfaction, and employment information. If a program would like to include a separate list of questions for a sub-set of students, contact the IR Office.

Employer Survey

A survey is administered yearly to local employers and also to those employers noted by alumni survey respondents. This survey gives an overall picture of employer satisfaction. If a program wishes to add questions to a sub-set of employers, contact the IR Office.

Employment Information

Annually the IR Office does an employer match using information from Employment Security to determine which CBC students are employed, where they are employed and their wages. This information is provided to each vocational department lead for use in determining their departmental outcomes measures and how successful they were in meeting their criteria for success.

Community College Student Experience Questionnaire

This survey was administered in the fall of 1996, the fall of 1999, and afterwards on a periodic basis. This survey measures how involved students are in their own learning by asking questions on instruction, use of the library, student activities, estimate of gains in general education, and college specific questions. Information on results of this questionnaire is available on the CBC web page under Office of Institutional Research and Marketing.

Appendix B

Worksheet to Determine Linkages between Purpose Statement, Department Outcomes, Results and Use of Results

Example of Linkage between Expanded Statement of Institutional Purpose, Departmental/Program Iutended Outcomes/Objectives, Results, and Use of Results

Expanded Statement Of Institutional Purpose	Departmental/Program Intended Outcomes/Objectives	Assessment Criteria & Procedures	Assessment Results	Use of Results
Mission Statement:	1.	1a.	1a.	1a.
		1b.	1b.	1b.
		1c.	1c.	1c.
↓				
Goal Statements	2.	2a.	2a.	2a.
a.		2b.	2b.	2b.
b.		2c.	2c.	2c.
c.	3.	3a.	3a.	3a.
d.		3b.	3b.	3b.
		3c.	3c.	3c.

Adapted from James O. Nichols, The Department Guide and Record Book for Student Outcomes Assessment and Institutional Effectiveness, Agathon Press, 1995

Appendix C

Examples of CBC Departmental Outcomes Assessment Forms (Carpentry and English)

ASSESSMENT RECORD

FOR Carpentry

(Department/Program)

1997-98

(Period Covered)

Departmental/Program Statement of Purpose

Mission: The Columbia Basin College Carpentry Program will provide skill training for entry level work, provide re-training or brush up for those seeking employment or those currently employed.

Intended Outcomes

1. At the end of the first year, students will have gained the knowledge and skills necessary for entry level job placement in the carpentry industry.

2. Employers of the Carpentry Program graduates in the Tri-Cities area will be satisfied with the training received by their employees.

3. At the end of the second year, students will have gained the knowledge and skills necessary to enter into advanced carpentry employment.

4. 90% of the students after leaving the Carpentry Program at CBC will be employed.

Form B

ASSESSMENT RECORD
English and Literature Departments
1998-99 Academic Year

Intended Outcome

NOTE: There should be one form C for each intended outcome listed on form B.

English Composition

1. Students will use and understand the writing process to write clearly and effectively; students will also
   - write in a variety of forms for different audiences and purposes
   - effectively evaluate the quality their own work and that of others.

First

a. Means of Assessment & Criteria for Success:

- 80 percent of students actively enrolled in college-level writing courses will complete the courses with a 2.0 GPA or higher[1]

a. Assessment Results:

N/A

a. Use of Results:

N/A

Second

b. Means of Assessment & Criteria for Success:

- The Department will revise the syllabi for English 101 and English 201 yearly to reflect the intended learning outcomes.

b. Assessment Results:

N/A

b. Use of Results:

N/A

Form C

1 This benchmark standard is based on a historical trend of CBC students' past performance and a state average of core-course completion rates, as measured and reported by the State Board for Community and Technical Colleges, Resolution 97-09-37. The State Board is drafting legislation to increase the rate to 85% of students who successfully complete English and math classes.

ASSESSMENT RECORD
English and Literature Departments
1998-99 Academic Year

Intended Outcome

NOTE: There should be one form C for each intended outcome listed on form B.

Literature

1. Students will read and understand college-level literary texts; students will also:

   - share knowledge gained from reading with others via class or group interchange to improve understanding
   - use a variety of reading strategies to understand what is assigned.

First

a. Means of Assessment & Criteria for Success:

- 80 percent of students actively enrolled in literature courses will complete the courses with a 2.0 GPA or higher.[3]

a. Assessment Results:

N/A

a. Use of Results:

N/A

Second

b. Means of Assessment & Criteria for Success:

N/A

b. Assessment Results:

N/A

b. Use of Results:

N/A

Form C

3 This benchmark standard is based on a historical trend of CBC students' past performance and a state average of core-course completion rates, as measured and reported by the State Board for Community and Technical Colleges, Resolution 97-09-37. The State Board is drafting legislation to increase the rate to 85% of students who successfully complete English and math classes.

ASSESSMENT RECORD
English and Literature Departments
1998-99 Academic Year

Intended Outcome

NOTE: There should be one form C for each intended outcome listed on form B.

English Composition

2. Developmental writing students will demonstrate the writing skills necessary to succeed in college-level writing courses.

First

a. Means of Assessment & Criteria for Success:

- Students enrolled in English 98 will take a common final essay exam, which will be evaluated holistically by the English faculty.
- 70 percent of students actively enrolled in English 98 will successfully complete the course.[2]
- The Department will revise the syllabus for English 98 yearly to reflect the intended learning outcomes.

a. Assessment Results:

N/A

a. Use of Results:

N/A

Second

b. Means of Assessment & Criteria for Success:

- 60 percent of students who pass English 98 will pass English 101 with a 2.0 GPA or higher. Students' grade results will be obtained from the registrar and calculated after the first college-level writing class.

b. Assessment Results:

N/A

b. Use of Results:

N/A

Form C

2 This benchmark standard is based on a historical trend of CBC students' past performance and a state average of core-course completion rates, as measured and reported by the State Board for Community and Technical Colleges, Resolution 97-09-37. The State Board is drafting legislation to increase the rate to 85% of students who successfully complete English and math classes.

ASSESSMENT RECORD
English and Literature Departments
1998-99 Academic Year

Intended Outcome

NOTE: There should be one form C for each intended outcome listed on form B.

Literature

2. Students will transfer reading comprehension and analytical skills to other academic, personal, or professional situations.

First

a. Means of Assessment & Criteria for Success:

- 75 percent of students enrolled in literature courses who receive a survey will complete a survey to measure quantitative and qualitative responses.
- 50 percent of the students who complete the survey will positively indicate that they can transfer reading and analytical skills to other academic, personal, or professional situations.

a. Assessment Results:

N/A

a. Use of Results:

N/A

Second

b. Means of Assessment & Criteria for Success:

- The Office of Institutional Research will assist with analyzing the students' surveys, and the results will be shared with the English faculty.

b. Assessment Results:

N/A

b. Use of Results:

N/A

Form C

ASSESSMENT RECORD
English and Literature Departments
1998-99 Academic Year

Intended Outcome

NOTE: There should be one form C for each intended outcome listed on form B.

English Composition

3. Students will successfully transfer writing skills to other academic, personal, or professional situations.

First

a. Means of Assessment & Criteria for Success:

- 75 percent of students enrolled in English 105 and English 201 will complete a survey to measure quantitative and qualitative responses. The surveys will be completed by students in class near the end of the quarter.
- 50 percent of the students who complete the survey will positively indicate that they can transfer writing to other academic, personal, or professional situations.
- The GPAs and completion rates of one group of students enrolled in a core course, and who has passed a college-level writing course, will be compared with that of another group of students without any prior college-level English or literature courses. The core courses involved in the comparison will be Introduction to Art, Sociology 101, and Geology 101. Winter quarter would be the best period to compare the groups who had completed college-level writing courses in fall quarter. ASSET and other standardized tests scores will be considered.

a. Assessment Results:

N/A

a. Use of Results:

N/A

Second

b. Means of Assessment & Criteria for Success:

- 60 percent of students who pass English 201 or 105 and who have enrolled at WSU Tri-Cities (fall semester 1998) will complete a survey to measure quantitative and qualitative responses. The Office of Institutional Research will assist with analyzing the students' surveys. English faculty will prepare and administer the survey. Results may also be obtained from the CBC Alumni Survey, which will be administered by the Office of Institutional Research.

b. Assessment Results:

N/A

b. Use of Results:

- The results will be shared with the English faculty to help modify the curriculum as needed.

Form C

ASSESSMENT RECORD
English and Literature Departments
1998-99 Academic Year

Intended Outcome

NOTE: There should be one form C for each intended outcome listed on form B.

English Composition

4. Students will use the college's Writing Center, including the online Writing Center, to obtain necessary assistance.

First

a. Means of Assessment & Criteria for Success:

- 20 percent of students enrolled in all English composition classes will register and work with a tutor (either individually or in a workshop) at least once per quarter.

a. Assessment Results:

N/A

a. Use of Results:

N/A

Second

b. Means of Assessment & Criteria for Success:

- Accurate tutoring logs will be kept, indicating the names of the students, tutors, and instructors; the classes and assignments or projects; as well as the areas of tutoring assistance provided.

b. Assessment Results:

N/A

b. Use of Results:

- Tutoring results will be shared at least twice per quarter with all English faculty via campus e-mail, enabling instructors to monitor their students' progress.

Form C

Appendix D

Blank Departmental Outcomes Assessment Forms

ASSESSMENT RECORD
FOR

(Department/Program)

(Period Covered)

Departmental/Program Statement of Purpose

Intended Outcomes

1.

2.

3.

4.

5.

Form B

ASSESSMENT RECORD

English and Literature Departments

1998-99 Academic Year

Departmental/Program Statement of Purpose

- The mission of the English Composition department is to provide students with college-level skills in critical reading and thinking, methods of research and documentation, analysis and interpretation of various forms of discourse, as well as writing across academic disciplines and creative and technical fields.

- The mission of the Literature department is to broaden students' knowledge of human experiences and to provide students with a college-level understanding of literary works, including the historical and cultural contexts, the means and circumstances of production, the forms and conventions, the functions served, as well as various methods of textual criticism.

- The combined mission of the English and Literature departments is to prepare students for either transfer to four-year colleges and universities or for entry into vocational or professional settings.

FORM B

Intended Outcomes

English Composition

1. Students will use and understand the writing process to write clearly and effectively; students will also
   - write in a variety of forms for different audiences and purposes
   - effectively evaluate the quality their own work and that of others.

Literature

1. Students will read and understand college-level literary texts; students will also
   - share knowledge gained from reading with others via class or group interchange to improve understanding
   - use a variety of reading strategies to understand what is assigned.

English Composition

2. Developmental writing students will demonstrate the writing skills necessary to succeed in college-level writing courses.

Literature

2. Students will successfully transfer reading comprehension and analytical skills to other academic, personal, or professional situations.

English Composition

3. Students will successfully transfer writing skills to other academic, personal, or professional situations.

English Composition

4. Students will use the college's Writing Center, including the online Writing Center, to obtain necessary assistance.

ASSESSMENT RECORD
FOR

Carpentry

(Department/Program)

1997-98

(Period Covered)

Intended Outcome

NOTE: There should be one form C for each intended outcome listed on form B.

At the end of the second year, students will have gained the knowledge and skills necessary to enter into advanced carpentry employment.

First

a. Means of Assessment & Criteria for Success:

a. Assessment Results:

a. Use of Results:

Second

b. Means of Assessment & Criteria for Success: Student employability by using data matches provided by the state board for community and technical colleges and Employment Security, plus the Alumni Survey.

b. Assessment Results:

b. Use of Results:

ASSESSMENT RECORD
FOR

Carpentry

(Department/Program)

1997-98

(Period Covered)

Intended Outcome

NOTE: There should be one form C for each intended outcome listed on form B.

90% of the carpentry students that have completed two years in the Carpentry Program will be employed in the carpentry trade.

First

a. Means of Assessment & Criteria for Success: Six months after the carpentry students have completed two years in the carpentry program, student employment will be provided by busing data matches provided by the state board for community and technical colleges and Employment Security, plus the Alumni Survey, 75% of students who exit the program after one year with a certification will be employed within one year.

a. Assessment Results:

a. Use of Results:

Second

b. Means of Assessment & Criteria for Success:

b. Assessment Results:

b. Use of Results:

ASSESSMENT RECORD FOR

Carpentry

(Department/Program)

1997-98

(Period Covered)

Intended Outcome

NOTE: There should be one form C for each intended outcome listed on form B.

At the end of the first year, students will have gained the knowledge and skills necessary for entry level job placement in the carpentry industry.

First

a. Means of Assessment & Criteria for Success: Student will demonstrate a marketable skill level by performing carpentry tasks well enough to be employable at entry level positions.

a. Assessment Results:

a. Use of Results:

Second

b. Means of Assessment & Criteria for Success: Student employability by using data matches provided by the state board for community and technical colleges and Employment Security, plus the Alumni Survey, 75% of the students who exit the program after one year will be employed within one year.

b. Assessment Results:

b. Use of Results:

Form C

ASSESSMENT RECORD
FOR
Carpentry

(Department/Program)

1997-98

(Period Covered)

Intended Outcome

NOTE: There should be one form C for each intended outcome listed on form B.

Employers of the Carpentry students will be satisfied with the training received by their employees.

First

a. Means of Assessment & Criteria for Success: 80 % of the employers who respond to an employer survey conducted every three years by the college will respond that they are satisfied with the training received by their employees.

a. Assessment Results:

a. Use of Results:

Second

b. Means of Assessment & Criteria for Success: The Carpentry Program Advisory Committee will be surveyed yearly to determine their satisfaction with the Carpentry Program curriculum.

b. Assessment Results:

b. Use of Results:

Appendix F

References and Further Reading

Appendix F

References and Further Reading

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Appendix E

Timelines for Gathering and Reporting Assessment Activities

Appendix E

TIMELINES FOR GATHERING AND REPORTING ASSESSMENT ACTIVITIES

Fall Quarter

Gather data on previous year's outcomes as determined by the designated measurements. Determine if criteria for success met your standard. As a department, review results and decide if any action is needed to reach department goals. Review outcomes to decide if they are continuing to meet your department's needs. If they are not, create new outcomes, measurements and criteria for their success.

Winter Quarter

Present outcomes report, including information on measurements and if criteria for success were met to your Division Dean. This can be accomplished either by a written report or by using Form C of the Departmental Outcomes Assessment forms. Use information from this report, if appropriate, in your departmental budgeting process. If additional resources are indicated from your assessment, this data should be used to support the increase in funding.

Gather data if your plan calls for quarterly assessment.

Spring Quarter

If your assessment plan calls for gathering data quarterly, data would continue to be gathered on those items.

Pasco Campus
2600 North 20th Ave.
Pasco, Washington 99301-3379
Phone: (509) 547-0511
FAX: (509) 546-0401
TDD/TTY: (509) 546-0400

CBC Richland Campus
1011 Northgate Drive
Richland, Washington 99352-3540
(509) 946-9669

Chase Centre
1600 N. 20th Ave.
Pasco, Washington 99301
(509) 547-0511, ext. 2222

Access CBC on the Internet:
www.cbc2.org/

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